

ABSTRACT

Since the inner diameter of a flow-contracting portion continuously decreases toward a cylindrical swirl chamber, the velocity of flow of washing water flowing in the flow-contracting portion continuously rises. Since the inner diameter of the flow-contracting portion continuously decreases toward a spray hole, the velocity of flow of the washing water flowing in the flow-contracting portion continuously rises. Washing water supplied to one of flow paths in a two-flow path pipe is supplied to a flow path merger through a one-flow path pipe. The washing water supplied to the other flow path in the two-flow path pipe is supplied to the flow path merger after passing through a space between the one-flow path pipe and a nozzle cover. Washing water sprayed from a nozzle cleaning hole flows out of an opening at a front end of a nozzle cleaning cylinder along an outer peripheral surface of a piston while being spirally swirled in a space between an inner wall of the nozzle cleaning cylinder and the outer peripheral surface of the piston. A position fixing member having a curved shape along an inner surface at a front end of the nozzle cover is formed at a front end of the flow path merger. While a posterior nozzle moves from a forward position to a backward position, dispersed spiral flow and linear flow are alternately sprayed.